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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,181	02/12/2004	Jerald W. VanderPol	VAND3023/JEK/JJC	3085
23364	7590	11/12/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			CADUGAN, ERICA E	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/776,181

Applicant(s)

VANDERPOL ET AL.

Examiner

Erica E Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/12/2004.
- ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 11092004.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10, drawn to a “cutting tool and track system”, classified in class 409, subclass 178.
  - II. Claims 11-12, drawn to a “method for cutting a hollow workpiece”, classified in class 409, subclass 132.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, for example, the apparatus can be used to practice a process on a workpiece that is not hollow, such as a flat plate.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Justin Cassell on November 1, 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 6 sets forth “at least two adjustable cam followers adjustably secured to the carriage deck and configured to be positioned against the track member”. However, the specification only specifically teaches that cam follower 68 is adjustable (paragraph 0039 on page 13, for example). No new matter should be entered.

### ***Drawings***

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second “adjustable cam follower” of claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Note that the specification only explicitly teaches that cam follower 68 is adjustable (paragraph 0039 on page 13).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 5-6, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 9, it is unclear as set forth in the claim with respect to what structure or element the end of the pin is “distal” as claimed.

There are several positively recited limitations that lack sufficient antecedent bases in the claims. Examples of this are: “the pin element” in claim 5, lines 9-10 (Examiner suggests changing this instance of “the pin element” to --each of the pin elements--); “the bearing assembly” in claim 5, line 10 (previously “at least two bearing assemblies”); “the sleeve member” in claim 5, last line (Examiner suggests changing “the bearing assembly including a

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retaining nut engaging the sleeve member” to language similar to --each bearing assembly including a retaining nut engaging a respective sleeve member--); “the carriage deck” in claim 6, line 4; “the first plate portion” in claim 8, lines 6-7; “the angle plate” in claim 8, line 7; “the upper holes” in claim 8, line 9 (previously singular); “the spindle” in claim 8, penultimate line; “the angle support” in claim 8, last line . This is not meant to be an all-inclusive list of such occurrences. Applicant is required to review the claims and correct any other such occurrences of limitations lacking sufficient antecedent basis.

As set forth in claim 9, it is unclear, via the lack of a definite modifying article such as “the” or “said”, whether “at least two track elements” are intended to be different from the track element(s) previously set forth. Examiner suggests changing “at least two track elements” to --at least two of the track elements--.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4, 6-7, and 9-10, those of which were rejected under 35 USC 112 above are as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,297,061 to Wolfe et al.

As taught by Wolfe, 3 is the workpiece (see Figures 2 and 6). Track element including track member 72 having a rack 88 is attached to the workpiece (see Figures 2 and 6, for example). Carriage assembly, including milling machine 85, rides along and is supported by the

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track 72 (see Figures 2 and 6, also col. 4, lines 35-48 and especially lines 42-45) via the driving of a motor-driven gear that cooperates with the “rack” 88 (see Figure 6, also col. 4, lines 42-45). Additionally note that 87 is a rotary milling cutter head that rotates a milling cutter 90 (col. 4, lines 35-48, Figure 6). Further note that ‘061 explicitly teaches that the cutting machine 85 includes means for enabling vertical adjustment and horizontal adjustment of the rotary milling cutter head 87 towards and away from the workpiece 3 (see col. 4, lines 39-42), and thus ‘061 teaches that the cutting tool assembly is arranged to be “fed both along its axis of rotation and transversely of its axis of rotation” as claimed. (Additionally note that the motion of the cutter head 87 along the track 72 constitutes transverse movement as well).

Re claim 2, note that ‘061 teaches “supports” including 63 and “securing elements” such as 61, 62, and/or 55 (see Figures 2 and 6 and col. 3, lines 56-59, for example).

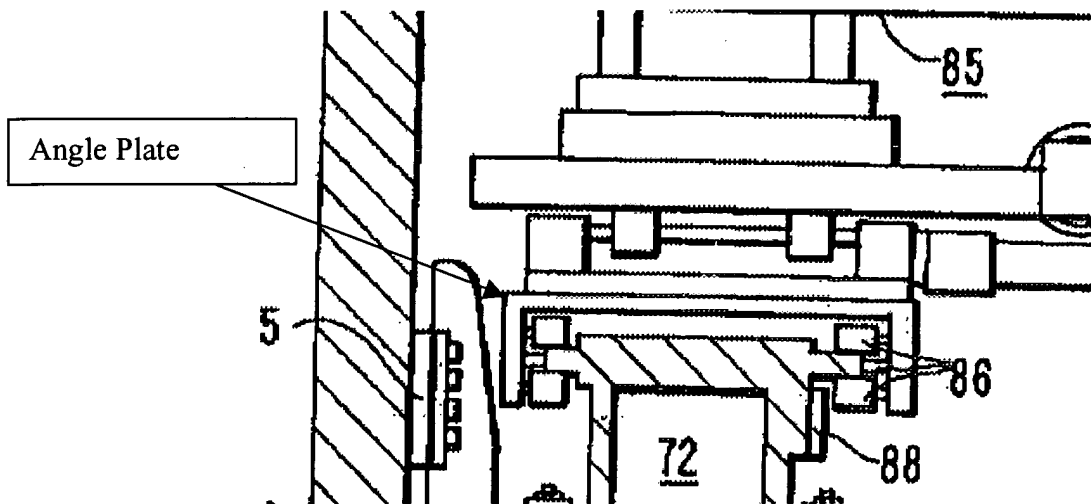
Regarding claims 3-4, note that 55 or 61 constitute a “plate” as claimed, and that stud bolts 62 constitute the “studs” as claimed. Specifically re claim 4, note that the “studs” 62 are “supported on” the workpiece via brackets 61 (Figures 2, 6, and col. 3, lines 56-59).

Re claim 6, note that guide rolls 86 (Figure 6, col. 4, lines 35-39) act as “cam followers” as claimed, and that they are considered “adjustable” as claimed, in that they are inherently “able” to be adjusted via using a tool to remove them and “adjust” them to a different location, for example.

Re claim 7, note that the member indicated in the partial reproduction of Figure 6 below has two downwardly extending legs connected to a horizontal platform, and can thus be considered an “angle plate” as claimed. Note that the cutting tool assembly is supported along

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the horizontal platform portion, and that the vertical sides are “supported to the carriage assembly” as claimed.



Re claim 9, see col. 4, lines 12-27, for example.

Re claim 10, if the described milling cutter wasn't an end mill, it wouldn't be able to function as described in col. 4, lines 35-48 and as shown in Figure 6.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. In the alternative, claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,297,061 to Wolfe et al. as applied to claims 1, 2, and 4 above.



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Wolfe et al. teaches all aspects of the claimed invention as described in the above rejection based thereon. Additionally, as described in the above 102 rejection based on Wolfe, guide rolls 86 (Figure 6, col. 4, lines 35-39) act as “cam followers” as claimed, and are considered “adjustable” as claimed, in that they are inherently “able” to be adjusted via using a tool to remove them and “adjust” them to a different location, for example.

However, in the event that such inherent “adjustability” is not considered enough to make the followers adjustable, or in the event that Applicant provides other claim language relating to the adjustability thereof, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the guide rolls 86 taught by Wolfe adjustable in order to facilitate the removal of the machining device from the track, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954) .

#### ***Allowable Subject Matter***

14. Claims 5 and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### ***Faxing of Responses to Office Actions and Contact Information***


16. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9306. This practice may be

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used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica Cadugan whose telephone number is (703) 308-6395. The examiner's telephone number will be changed to (571) 272-4474 in mid-November. The examiner can normally be reached on Monday through Thursday from 7:30 a.m. to 5:00 p.m., and every other Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached at (703) 308-2159. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 3700 receptionist whose telephone number is (703) 308-1148.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erica E Cadugan  
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Art Unit 3722

ecc

November 9, 2004